Summary of Timber Supply Review Results

1992-1996

Introduction

The Ministry of Forests' Timber Supply Review program was developed to respond to the urgent need for up-to-date information for a review of the timber supply and allowable annual cuts across the province. Before 1992, allowable annual cuts had not been determined on a regular basis. The Forest Service and the public were becoming concerned that harvest levels did not reflect current forest practices and policy, and that in some areas, allowable annual cuts were too high. In 1991 the Ministry of Forests examined the way allowable annual cuts were determined. The findings of this study were summarized in a report, *A Review of the Timber Supply Analysis Process for British Columbia*. The report proved to be a catalyst for change. The government passed legislation under Section 7 of the *Forest Act* requiring that allowable annual cuts be reviewed and determined every five years. In 1992, the first systematic review of 37 timber supply areas and 34 tree farm licences in the province began.

On Dec. 19, 1996, the chief forester met his mandate under the *Forest Act* by releasing his final allowable annual cut determination under the first round of the Timber Supply Review. This report collates and summarizes the overall findings of the Timber Supply Review.

It is important to note that although this round of determinations is complete, work is continuing on the next Timber Supply Review program in keeping with Section 7 of the *Forest Act* which requires that allowable annual cuts be reviewed every five years.

Objectives

The objectives of the Timber Supply Review are to identify the consequences of current forest management and forest practices, including the impact on short- and long-term timber supply. The Timber Supply Review also identifies where improved information is required for reliable timber supply forecasts and for the chief forester's consideration in determining new allowable annual cuts.

A five-step process

Allowable annual cuts for timber supply areas were determined through a five-step process over a specified time-period. During this time, a data package, timber supply analysis, socio-economic analysis and public discussion paper were released to the public. A three-month review period was then offered to the public to provide input which would be considered by the chief forester in his allowable annual cut determination. The new allowable annual cut was then released along with a detailed rationale and a summary of public input. The process for tree farm licences was similar but was designed to reflect the management role of licensees.

The chief forester's role

Determining allowable annual cuts for tree farm licences and timber supply areas in B.C. is the responsibility of the chief forester. It is one of the chief forester's most important responsibilities since it affects local and provincial economies and the environment. Section 7 of the *Forest Act* requires the chief forester to consider a variety of factors in determining an allowable annual cut, including:

- the rate of timber production that may be sustained on the area
- the short- and long-term implications to the province of alternative rates of timber harvesting from the area
- the nature, production capabilities, and timber requirements of established and proposed timber processing facilities
- the economic and social objectives of the Crown as expressed by the minister of forests

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- abnormal insect or disease infestations and major salvage programs planned for the timber on the area.

Some of these factors can be measured and analysed, others cannot. Ultimately, the chief forester's determination is an independent professional judgment. While the chief forester considers the socio-economic objectives of the Crown, he is not directed by the minister of forests when determining allowable annual cuts.

Results of the Timber Supply Review

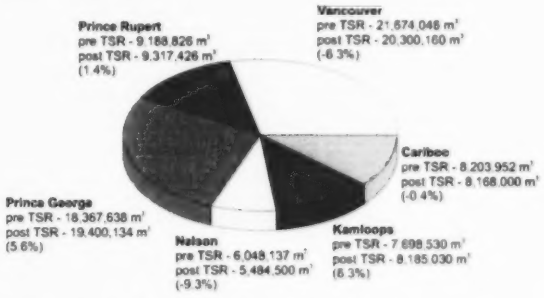
The conclusion in December 1996 of the first complete timber supply review in B.C. resulted in new allowable annual cuts for 34 tree farm licences and 37 timber supply areas. The results of this review are summarized and illustrated in this document. It is important to note that the allowable annual cuts before and after the Timber Supply Review are not entirely comparable. Some wood previously harvested under special licences outside the allowable annual cut—for example, pulpwood forests and over-mature cedar hemlock—is now included in the allowable annual cut. As a result, in some cases the allowable annual cut *appears* to be larger after the Timber Supply Review when in fact no additional volume will be harvested. In other cases, the current inclusion of this wood has offset an otherwise larger allowable annual cut reduction.

The resulting provincial picture indicates that the total provincial allowable annual cut for timber supply areas and tree farm licences has been reduced by 0.5 per cent, or 325,000 cubic metres, since the Timber Supply Review began in 1992. However, after allowing for the changes in allowable annual cut accounting as described above, the real reduction in terms of the pre-Timber Supply Review allowable annual cut is somewhat greater, and is in the range of one to two per cent.

By simply looking at the overall change in the allowable annual cut for the province, one might be tempted to conclude that little has changed since the Timber Supply Review began. However, the overall change in the total provincial harvest does not reflect the many local changes which have taken place. The Timber Supply Review resulted in allowable annual cut reductions in 32 management units, increases in 19 units and in 20 units the cut level remained the same.

Three regions—Prince George, Prince Rupert and Kamloops—all experienced increases in allowable annual cut. In many cases the increases were the result of changes in technology, which permit harvesting in previously uneconomic forests, or of improved information about forest characteristics. These increases will encourage economic activity in many of the communities in these regions. The total increase in allowable annual cut for these three regions was 1,648,000 cubic metres.

In contrast, there have been sharp reductions in the Nelson and Vancouver forest regions, and to a lesser extent in the Cariboo, totalling 1,966,000 cubic metres. The allowable annual cut for the Nelson region dropped by over nine per cent or 564,000 cubic metres and the allowable annual cut for the Vancouver region was reduced by approximately six per cent or 1,374,000 cubic metres.



Note: numbers in brackets indicate size of change between pre-TSR and post-TSR allowable annual cuts.

As a result of this review, there have been important changes in the types of wood which are available under the allowable annual cut. The conventional coniferous, sawlog component of the harvest has declined in every region, and province wide by more than five per cent or by 3,470,921 cubic metres. Deciduous and lower economic value components, in contrast, have increased significantly.

There have also been substantial changes in the types of terrain where harvesting occurs. Forests with more difficult isolated terrain now make up a larger part of the allowable annual cut than before. The cost of harvesting these

1992-1996 Timber Supply Review Results (TSAs and TFLs)

Region		AAC	Conventional m^3	Deciduous m^3	Insect/Disease m^3	Marginal m^3
Vancouver	*pre-TSR*	21,674,046	21,269,359	138,687	0	266,000
	post-TSR	20,300,160	19,301,700	289,260	0	709,200
	Δ	-6.3%	-9.3%	108.6%	0.0%	166.6%
Prince Rupert	*pre-TSR*	9,188,826	9,188,826	0	0	0
	post-TSR	9,317,426	8,560,426	20,000	0	737,000
	Δ	1.4%	-6.8%	∞	0.0%	∞
Prince George	*pre-TSR*	18,367,638	16,235,307	2,132,331	0	0
	post-TSR	19,400,134	16,194,534	2,811,500	290,000	104,100
	Δ	5.6%	-0.3%	31.9%	∞	∞
Nelson	*pre-TSR*	6,048,137	6,048,137	0	0	0
	post-TSR	5,484,500	5,339,500	0	0	145,000
	Δ	-9.3%	-11.7%	0.0%	0.0%	∞
Kamloops	*pre-TSR*	7,698,530	7,698,530	0	0	0
	post-TSR	8,185,030	7,643,030	0	0	542,000
	Δ	6.3%	-0.7%	0.0%	0.0%	∞
Cariboo	*pre-TSR*	8,203,952	6,378,952	75,000	850,000	900,000
	post-TSR	8,168,000	6,309,000	40,000	850,000	969,000
	Δ	-0.4%	-1.1%	-46.7%	0.0%	7.7%
B.C.	*pre-TSR*	71,181,129	66,819,111	2,346,018	850,000	1,166,000
	post-TSR	70,855,250	63,348,190	3,160,760	1,140,000	3,206,300
	Δ	-0.5%	-5.2%	34.7%	34.1%	175.0%

areas is higher because of the need to use unconventional harvesting techniques such as helicopters.

Trends

The conventional coniferous, sawlog component of the provincial allowable annual cut has declined by 3,471,000 million cubic metres. This significant decline has been offset to some degree by increases of 815,000 cubic metres in deciduous volumes, a temporary uplift of 290,000 for salvage and forest health improvement in insect-attacked stands, and a 2,040,000-cubic-metre increase in harvests from marginally economic stands. Prior to the review, the lower value component accounted for six per cent of the allowable annual cut; that proportion has now climbed to almost 11 per cent.

This change in the quality of the allowable annual cut has major implications for the existing timber processing industry. Some operations will have to retool in order to process different species, smaller size material or poor quality wood. In addition to the costs of reinvestment, the cost of harvesting in marginally economic forests is often higher due to difficult terrain and access difficulties and the value of the final products is typically lower.

It is likely that allowable annual cuts will continue to decline in a number of areas across the province. In the review that ended in 1996, less than half of the 71 allowable annual cuts determined fully accounted for the effects of the Forest Practices Code as they were completed before the code was implemented. As well, a number of the earlier determinations could not consider protected areas that had not yet been approved by cabinet, but which have been subsequently announced.

In many areas, the allowable annual cuts are still above the long-term harvest level. This reflects the fact that older forests contain more wood than younger forests. In some areas, as timber harvesting moves into second-growth forests, allowable annual cuts will decline even

though the area harvested may not change significantly.

As a result, subsequent allowable annual cut determinations for many areas of the province are likely to continue the downward trend established in this initial review. It is also important to manage these declines responsibly over time to allow the workers, communities and the forest industry to adjust to these reductions. This is consistent with the social and economic objectives of the Crown expressed by the minister of forests to the chief forester under the *Forest Act*. These objectives include limiting allowable annual cut reductions to no more than necessary to maintain long-term sustainability, and the inclusion of timber which typically has not been used in the past.

At the same time, there are also significant opportunities to improve the long-term outlook. New information gathered from site index studies indicates that growth rates are underestimated in many parts of the province. Silviculture investments funded by Forest Renewal B.C. could also increase timber supply in the long term.

Next Round

Work is continuing under the timber supply review program. By December 31, 2001, new allowable annual cuts will be determined for all 34 tree farm licences and 37 timber supply areas in the province. The review of timber supply areas will include significant enhancements in modelling and a formal public review of the data inputs and management assumptions.

Conclusion

This first round of the Timber Supply Review signals the beginning of overall harvest level reductions in many areas of the province and this trend is expected to continue over subsequent five year periods. While work is under way to mitigate such reductions wherever possible, the overall downward trend is expected to continue in many areas.

The chief forester intends to continue the pattern of gradual reductions in allowable annual cuts towards the long-term harvest level wherever this is a biologically attainable strategy.

In addition to the Timber Supply Review's success in determining new allowable annual cuts for all 71 units in the province, the initiative was also successful in defining areas where information is either weak or deficient. Initiatives such as collecting better inventory information or completing biodiversity plans will greatly assist future allowable annual cut determinations.

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